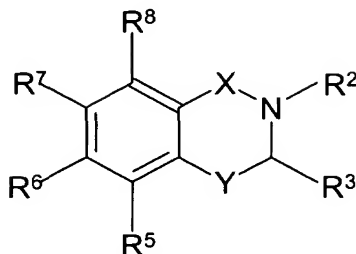


Claims:

1. A compound represented by the general formula (I):



5 wherein

X represents C=O or CH₂; and

Y represents CH(R⁴), N(R⁴) or N(R⁴)-CH₂, or O; and

R² represents hydrogen, alkyl, cycloalkyl, aryl, benzyl, or -CO-R⁹,

10 wherein R⁹ represents alkyl, cycloalkyl, benzyl, or aryl; or

R² together with R³, and together with the atoms to which they are attached, forms a 4- to 7-membered ring,

15 which ring is optionally substituted one or more times with substituents selected from halogen, alkyl, alkenyl, alkynyl, hydroxy, alkoxy, amino, and thio, and optionally containing one or more heteroatoms and optionally containing carbonyl groups; and

R³ represents hydrogen, cycloalkyl, alkyl, cycloalkylalkyl, haloalkyl, hydroxyalkyl, cyanoalkyl, alkoxyalkyl, alkoxy, haloalkoxy, acyl, alkyl-NR¹³R¹⁴, or -alkyl-S-R¹³,

20 wherein

R¹³ and R¹⁴ independently represents hydrogen, alkyl, or cycloalkyl; or

R¹³ and R¹⁴ together with the nitrogen to which they are attached forms a 3- to 8-membered heterocyclic ring structure; or

25 R³ represents a carbocyclic 7- to 12- membered ring, which carbocyclic ring is optionally substituted with halogen, alkyl, hydroxy or alkoxy; or

R³ represents a heterocyclic 3- to 8-membered ring, which heterocyclic ring is optionally substituted with halogen, alkyl, hydroxy or alkoxy, and optionally the heterocyclic ring is fused to an aryl; or

30

R³ represents benzyl,

which benzyl is optionally substituted one or more times with substituents selected from the group consisting of halogen, cycloalkyl, alkyl, hydroxy, alkoxy, amino, thio, haloalkyl, hydroxyalkyl, alkoxyalkyl, alkylthio, and alkylamino; or

5 R^3 represents aryl,
which aryl is optionally substituted one or more times with substituents selected from the group consisting of halogen, cycloalkyl, alkyl, hydroxy, alkoxy, amino, thio, haloalkyl, hydroxyalkyl, alkoxyalkyl, alkylthio, and alkylamino; or

10 R^3 together with R^2 or R^4 , and together with the atoms to which they are attached, forms a 4- to 7- membered ring,
which ring is optionally substituted one or more times with substituents selected from halogen, alkyl, alkenyl, alkynyl, hydroxy, alkoxy, amino, and thio, and optionally containing one or more heteroatoms and optionally containing carbonyl groups; and

15 R^4 represents hydrogen, alkyl, cycloalkyl, cycloalkylalkyl, aryl, $-\text{CO}-R^{10}$, or $-\text{CO}_2R^{10}$,
wherein R^{10} represents hydrogen, cycloalkyl, alkyl, aryl or benzyl; or

R^4 together with R^3 , and together with the atoms to which they are attached, forms a 4- to
20 7- membered ring,
which ring is optionally substituted one or more times with substituents selected from halogen, alkyl, alkenyl, alkynyl, hydroxy, alkoxy, amino, and thio, and optionally containing one or more heteroatoms and optionally containing carbonyl groups; and

25 R^5 represents hydrogen, halogen, alkyl, alkenyl, alkynyl, or aryl; or

R^5 represents $-\text{SO}_2-\text{NR}^{11}\text{R}^{12}$,
wherein

R^{11} and R^{12} independently represents hydrogen, alkyl, cycloalkyl, benzyl, aryl; or

30 R^{11} and R^{12} together with the nitrogen to which they are attached form a heterocyclic 3- to 8-membered ring structure,
which ring structure is optionally substituted with halogen, alkyl, hydroxy, alkoxy, amino, thio, aryl, benzyl, $-\text{SO}_2$ -alkyl, $-\text{SO}_2$ -aryl, or $-\text{SO}_2$ -benzyl, and optionally the heterocyclic ring is fused to an aryl; and

35 R^6 represents hydrogen, halogen, alkyl, cyano, cyanoalkyl, nitro, alkoxy, haloalkoxy, haloalkyl, hydroxyalkyl, cycloalkyl, or cyclohaloalkyl; or

R^6 represents $-NR^{15}R^{16}$, $-NHSO_2-R^{15}$, or $-NHSO_2$ -aryl,
 wherein the aryl is optionally substituted one or more times with substituents selected
 from halogen, alkyl, cycloalkyl, hydroxy, alkoxy, amino, thio, $-CF_3$, $-OCF_3$, $-NO_2$, and
 5 aryl; wherein R^{15} and R^{16} independently represents hydrogen, alkyl, cycloalkyl, benzyl, or
 aryl; or
 R^{15} and R^{16} together with the nitrogen to which they are attached form a heterocyclic 3-
 to 8-membered ring structure,
 which ring structure is optionally substituted with halogen, alkyl, alkenyl, alkynyl, hydroxy,
 10 alkoxy, amino, thio, aryl, benzyl, $-SO_2$ -alkyl, $-SO_2$ -aryl, or $-SO_2$ -benzyl, and optionally the
 heterocyclic ring is fused to an aryl; or

R^6 represents aryl,
 which aryl is optionally substituted one or more times with substituents selected from the
 15 group consisting of alkyl, cycloalkyl, alkoxy, haloalkyl, haloalkoxy, hydroxyalkyl,
 alkoxyalkyl, and amino; or

R^6 represents HET,
 which HET is optionally substituted one or more times with substituents selected from
 20 the group consisting of alkyl, cycloalkyl, alkoxy, halogen, haloalkyl, and haloalkoxy; or

R^6 represents $-(alkyl)_m-S-R^{15}$, $-(alkyl)_m-SO-R^{15}$, $-(alkyl)_m-SO_2-R^{15}$, $-(alkyl)_m-SO_2OR^{15}$, -
 $(alkyl)_m-SO_2-NR^{15}R^{16}$, $-(alkyl)_m-NHCOR^{15}$, $-(alkyl)_m-CONR^{15}R^{16}$, $-(alkyl)_m-CR'=NOR''$, -
 $(alkyl)_m-CO-R^{15}$, $-(alkyl)_m-CO_2-R^{15}$,

25 wherein

m is 0 or 1; and

R' and R'' independently represents hydrogen, alkyl, cycloalkyl, alkenyl, alkynyl, aryl, or
 benzyl; and

R^{15} and R^{16} independently represents hydrogen, alkyl, cycloalkyl, benzyl, or aryl; or

30 R^{15} and R^{16} together with the nitrogen to which they are attached form a heterocyclic 3-
 to 8-membered ring structure,

which ring structure is optionally substituted with halogen, alkyl, alkenyl, alkynyl, hydroxy,
 alkoxy, amino, thio, aryl, benzyl, $-SO_2$ -alkyl, $-SO_2$ -aryl, or $-SO_2$ -benzyl, and optionally the
 heterocyclic ring is fused to an aryl; and

R^7 represents hydrogen, halogen, alkyl, cyano, cyanoalkyl, nitro, nitroalkyl, alkoxy, haloalkoxy, haloalkyl, hydroxyalkyl, cycloalkyl, or cyclohaloalkyl; or

R^7 represents $-NR^{17}R^{18}$, $-NHSO_2-R^{17}$, or $-NHSO_2$ -aryl,
 5 wherein the aryl is optionally substituted one or more times with substituents selected from halogen, alkyl, cycloalkyl, hydroxy, alkoxy, amino, thio, $-CF_3$, $-OCF_3$, $-NO_2$, aryl; or

R^7 represents $-(alkyl)_m-S-R^{17}$, $-(alkyl)_m-SO-R^{17}$, $-(alkyl)_m-SO_2-R^{17}$, $-(alkyl)_m-SO_2OR^{17}$,
 $-(alkyl)_m-SO_2-NR^{17}R^{18}$, $-(alkyl)_mNHCOR^{17}$, $-(alkyl)_mCONR^{17}R^{18}$, $-(alkyl)_m-CR'=NOR''$, -
 10 $(alkyl)_m-CO-R^{17}$, or $-(alkyl)_mCO_2-R^{17}$,
 wherein
 m is 0 or 1; and
 R' and R'' independently represents hydrogen, alkyl, cycloalkyl, alkenyl, alkynyl, aryl, benzyl; and
 15 R^{17} and R^{18} independently represents hydrogen, alkyl, cycloalkyl, benzyl, or aryl; or R^{17} and R^{18} together with the nitrogen to which they are attached form a heterocyclic 3- to 8-membered ring structure,
 which ring structure is optionally substituted with halogen, alkyl, alkenyl, alkynyl, hydroxy, alkoxy, amino, thio, aryl, benzyl, $-SO_2$ -alkyl, $-SO_2$ -aryl, or $-SO_2$ -benzyl, and optionally the
 20 heterocyclic ring is fused to an aryl; or

R^7 represents HET,
 which HET is optionally substituted one or more times with substituents selected from halogen, alkyl, alkenyl, alkynyl, hydroxy, alkoxy, amino, thio, aryl, $-S$ -alkyl, $-S$ -aryl, $-SO$ -
 25 alkyl, $-SO$ -aryl, $-SO_2$ -alkyl, $-SO_2$ -aryl, or $-SO_2NR^{17}R^{18}$; or

R^7 represents aryl,
 which aryl is optionally substituted one or more times with substituents selected from the group consisting of alkyl, alkenyl, alkynyl, hydroxy, alkoxy, hydroxyalkyl, halogen, haloalkyl, amino, $-NHCO$ -alkyl, nitro, $-OCF_3$, or $-SO_2-NR^{17}R^{18}$,
 30 wherein
 R^{17} and R^{18} independently represents hydrogen, alkyl, cycloalkyl, benzyl, or aryl; or R^{17} and R^{18} together with the nitrogen to which they are attached form a heterocyclic 3- to 8-membered ring structure,

which ring structure is optionally substituted with halogen, alkyl, alkenyl, alkynyl, hydroxy, alkoxy, amino, thio, aryl, benzyl, -SO₂-alkyl, -SO₂-aryl, or -SO₂-benzyl, and optionally the heterocyclic ring is fused to an aryl; or

5 R⁷ together with R⁶, or together with R⁸, forms a 5- to 7-membered ring having the one of the following structures

-O-(CH₂)_n-O-, wherein n is 1, 2 or 3;

-SO₂-NR-(CH₂)_n-, wherein R is hydrogen, alkyl, cycloalkyl, benzyl or aryl, and n is 1 or 2;

-SO-NR-(CH₂)_n-, wherein R is hydrogen, alkyl, cycloalkyl, benzyl or aryl, and n is 1 or 2;

10 -SO₂-(CH₂)_n-, wherein n is 2 or 3;

-SO-(CH₂)_n-, wherein n is 2 or 3;

-CO-CH=CH-NH-;

-CO-CH=CH-O-;

-CO-(CH₂)_n-NH-, wherein n is 1 or 2;

15 -CO-NH-(CH₂)_n-, wherein n is 1 or 2;

-CO-(CH₂)₂-O-; or

-O-(CH₂)_n-O-, wherein n is 1, 2 or 3; and

R⁸ represents hydrogen, alkyl, alkoxy, hydroxyalkyl, halogen, haloalkyl, CN, cyanoalkyl,
20 nitro, or nitroalkyl; or

R⁸ represents aryl,
which aryl is optionally substituted one or more times with substituents selected from the
group consisting of halogen, -CF₃, -OCF₃, -NO₂, alkyl, cycloalkyl, and alkoxy; or

25

R⁸ represents HET,
which HET is optionally substituted one or more times with substituents selected from
the group consisting of halogen, -CF₃, -OCF₃, -NO₂, alkyl, cycloalkyl, and alkoxy; or

30 R⁸ represents -(alkyl)_m-S-R¹⁹, -(alkyl)_m-SO-R¹⁹, -(alkyl)_m-SO₂-R¹⁹, -(alkyl)_m-SO₂OR¹⁹,
-(alkyl)_m-SO₂-NR¹⁹R²⁰, -(alkyl)_mNHCOR¹⁹, -(alkyl)_mCONR¹⁹R²⁰, -(alkyl)_m-CR'=NOR'', -
(alkyl)_m-CO-R¹⁹, or -(alkyl)_m-CO₂-R¹⁹,
wherein
m is 0 or 1; and

R' and R'' independently represents hydrogen, alkyl, cycloalkyl, alkenyl, alkynyl, aryl, or benzyl; and

R¹⁹ and R²⁰ independently represents hydrogen, alkyl, cycloalkyl, benzyl, or aryl; or R¹⁹ and R²⁰ together with the nitrogen to which they are attached form a heterocyclic 3- to 8-membered ring structure,

which ring structure is optionally substituted with halogen, alkyl, alkenyl, alkynyl, hydroxy, alkoxy, amino, thio, aryl, benzyl, -SO₂-alkyl, -SO₂-aryl, or -SO₂-benzyl, and optionally the heterocyclic ring is fused to an aryl;

10 or a compound represented by the general formula (I) wherein

X represents SO₂; and

Y represents CH(R⁴), N(R⁴), N(R⁴)-CH₂ or O; and

R² represents hydrogen; and

15

R³ represents hydrogen, cycloalkyl, alkyl, cycloalkylalkyl, haloalkyl, hydroxyalkyl, cyanoalkyl, alkoxyalkyl, alkoxy, haloalkoxy, -alkyl-NR¹³R¹⁴, or -alkyl-S-R¹³, wherein

R¹³ and R¹⁴ independently represents hydrogen, alkyl, or cycloalkyl; or

20

R¹³ and R¹⁴ together with the nitrogen to which they are attached form a 3- to 8-membered heterocyclic ring structure; or

R³ represents a carbocyclic 7- to 12- membered ring,

which carbocyclic ring is optionally substituted with halogen, alkyl, hydroxy or alkoxy; or

25

R³ represents a heterocyclic 3- to 8-membered ring,

which heterocyclic ring is optionally substituted with halogen, alkyl, hydroxy or alkoxy, and optionally the heterocyclic ring is fused to an aryl; or

30

R³ represents benzyl,

which benzyl is optionally substituted one or more times with substituents selected from the group consisting of halogen, cycloalkyl, alkyl, hydroxy, alkoxy, amino, thio, haloalkyl, hydroxyalkyl, alkoxyalkyl, alkylthio, and alkylamino; or

- R^3 together with R^4 , and together with the atoms to which they are attached, forms a 4- to 7- membered ring,
 which ring is optionally substituted one or more times with substituents selected from halogen, alkyl, alkenyl, alkynyl, hydroxy, alkoxy, amino and thio, and optionally
 5 containing one or more heteroatoms and optionally containing carbonyl groups; and
- R^4 represents hydrogen, alkyl, cycloalkyl, cycloalkylalkyl, aryl, $-\text{CO}-R^{10}$, or $-\text{CO}_2R^{10}$,
 wherein R^{10} represents hydrogen, cycloalkyl, alkyl, aryl or benzyl; or
- 10 R^4 together with R^3 , and together with the atoms to which they are attached, forms a 4- to 7- membered ring,
 which ring is optionally substituted one or more times with substituents selected from halogen, alkyl, alkenyl, alkynyl, hydroxy, alkoxy, amino and thio, and which ring is
 optionally containing one or more heteroatoms and optionally containing carbonyl
 15 groups; and
- R^5 represents hydrogen, halogen, alkyl, alkenyl, alkynyl, aryl, or $-\text{SO}_2-\text{NR}^{11}\text{R}^{12}$,
 wherein R^{11} and R^{12} independently represents hydrogen, alkyl, cycloalkyl, benzyl, or aryl;
 or
- 20 R^{11} and R^{12} together with the nitrogen to which they are attached form a heterocyclic 3- to 8-membered ring structure,
 which ring structure is optionally substituted with halogen, alkyl, hydroxy, alkoxy, amino, thio, aryl, benzyl, $-\text{SO}_2$ -alkyl, $-\text{SO}_2$ -aryl, or $-\text{SO}_2$ -benzyl, and optionally the heterocyclic ring is fused to an aryl; and
- 25 R^6 represents hydrogen, halogen, alkyl, cyano, cyanoalkyl, nitro, alkoxy, haloalkoxy, hydroxyalkyl, cycloalkyl, or cyclohaloalkyl, or
- R^6 represents $-\text{NR}^{15}\text{R}^{16}$, $-\text{NHSO}_2-\text{R}^{15}$, or $-\text{NHSO}_2$ -aryl,
 30 wherein the aryl is optionally substituted one or more times with substituents selected from halogen, alkyl, cycloalkyl, hydroxy, alkoxy, amino, thio, $-\text{CF}_3$, $-\text{OCF}_3$, $-\text{NO}_2$, and aryl;
 wherein R^{15} and R^{16} independently represents hydrogen, alkyl, cycloalkyl, benzyl, or aryl;
 or
- 35 R^{15} and R^{16} together with the nitrogen to which they are attached form a heterocyclic 3- to 8-membered ring structure,

which ring structure is optionally substituted with halogen, alkyl, alkenyl, alkynyl, hydroxy, alkoxy, amino, thio, aryl, benzyl, -SO₂-alkyl, -SO₂-aryl, or -SO₂-benzyl, and optionally the heterocyclic ring is fused to an aryl; or

5 R⁶ represents aryl, optionally substituted one or more times with substituents selected from the group consisting of alkyl, cycloalkyl, alkoxy, haloalkyl, haloalkoxy, hydroxyalkyl, alkoxyalkyl and amino; or

10 R⁶ represents HET, optionally substituted one or more times with substituents selected from the group consisting of alkyl, cycloalkyl, alkoxy, halogen, haloalkyl, and haloalkoxy; or

R⁶ represents -(alkyl)_m-S-R¹⁵, -(alkyl)_m-SO-R¹⁵, -(alkyl)_m-SO₂-R¹⁵, -(alkyl)_m-SO₂OR¹⁵, -
15 (alkyl)_m-SO₂-NR¹⁵R¹⁶, -(alkyl)_m-NHCOR¹⁵, -(alkyl)_m-CONR¹⁵R¹⁶, -(alkyl)_m-CR'=NOR'', -
(alkyl)_m-CO-R¹⁵; or -(alkyl)_m-CO₂-R¹⁵,

wherein

m is 0 or 1; and

R' and R'' independently represents hydrogen, alkyl, cycloalkyl, alkenyl, alkynyl, aryl, or
20 benzyl; and

R¹⁵ and R¹⁶ independently represents hydrogen, alkyl, cycloalkyl, benzyl, or aryl; or

R¹⁵ and R¹⁶ together with the nitrogen to which they are attached form a heterocyclic 3-
to 8-membered ring structure,

which ring structure is optionally substituted with halogen, alkyl, alkenyl, alkynyl, hydroxy,
25 alkoxy, amino, thio, aryl, benzyl, -SO₂-alkyl, -SO₂-aryl, or -SO₂-benzyl, and optionally the
heterocyclic ring is fused to an aryl; and

R⁷ represents halogen, alkyl, cyano, cyanoalkyl, nitroalkyl, alkoxy, haloalkoxy, haloalkyl,
hydroxyalkyl, cycloalkyl, or cyclohaloalkyl, or

30 R⁷ represents -NR¹⁷R¹⁸, -NHSO₂-R¹⁷, or -NHSO₂-aryl,
wherein the aryl is optionally substituted one or more times with substituents selected
from halogen, alkyl, cycloalkyl, hydroxy, alkoxy, amino, thio, -CF₃, -OCF₃, -NO₂, and
aryl; or

35 R⁷ represents -(alkyl)_m-S-R¹⁷, -(alkyl)_m-SO-R¹⁷, -(alkyl)_m-SO₂-R¹⁷, -(alkyl)_m-SO₂OR¹⁷,
-(alkyl)_mNHCOR¹⁷, -(alkyl)_mCONR¹⁷R¹⁸, -(alkyl)_m-CR'=NOR'', -(alkyl)_m-CO-R¹⁷, or
-(alkyl)_mCO₂-R¹⁷,

wherein

m is 0 or 1; and

R' and R'' independently represents hydrogen, alkyl, cycloalkyl, alkenyl, alkynyl, aryl, or benzyl; and

5 R¹⁷ and R¹⁸ independently represents hydrogen, alkyl, cycloalkyl, benzyl, or aryl, or R¹⁷ and R¹⁸ together with the nitrogen to which they are attached forms a heterocyclic 3- to 8-membered ring structure,

which ring structure is optionally substituted with halogen, alkyl, alkenyl, alkynyl, hydroxy, alkoxy, amino, thio, aryl, benzyl, -SO₂-alkyl, -SO₂-aryl, or -SO₂-benzyl, and optionally the
10 heterocyclic ring is fused to an aryl; or

R⁷ represents -(alkyl)_m-SO₂-NR¹⁷R¹⁸,

wherein

m is 0 or 1; and

15 R¹⁷ and R¹⁸ independently of each another represents alkyl, cycloalkyl, benzyl, or aryl; or R¹⁷ and R¹⁸ together with the nitrogen to which they are attached form a heterocyclic 3- to 8-membered ring structure,

which ring structure is optionally substituted with halogen, alkyl, alkenyl, alkynyl, hydroxy, alkoxy, amino, thio, aryl, benzyl, -SO₂-alkyl, -SO₂-aryl, or -SO₂-benzyl, and optionally the
20 heterocyclic ring is fused to an aryl; or

R⁷ represents HET,

optionally substituted one or more times with substituents selected from halogen, alkyl, alkenyl, alkynyl, hydroxy, alkoxy, amino, thio, aryl, -S-alkyl, -S-aryl, -SO-alkyl, -SO--aryl, -SO₂-alkyl, -SO₂-aryl, and -SO₂NR¹⁷R¹⁸; or

25 R⁷ represents aryl,

optionally substituted one or more times with substituents selected from the group consisting of alkyl, alkenyl, alkynyl, hydroxy, alkoxy, hydroxyalkyl, halogen, haloalkyl, amino, -NHCO-alkyl, nitro, -OCF₃, and -SO₂-NR¹⁷R¹⁸,

30 wherein

R¹⁷ and R¹⁸ independently represents hydrogen, alkyl, cycloalkyl, benzyl, or aryl, or R¹⁷ and R¹⁸ together with the nitrogen to which they are attached form a heterocyclic 3- to 8-membered ring structure,

which ring structure is optionally substituted with halogen, alkyl, alkenyl, alkynyl, hydroxy, alkoxy, amino, thio, aryl, benzyl, -SO₂-alkyl, -SO₂-aryl, or -SO₂-benzyl, and optionally the
35 heterocyclic ring is fused to an aryl;

or

R^7 together with R^6 , or together with R^8 , forms a 5- to 7-membered ring having the one of the following structures

- 5 -O-(CH₂)_n-O-, wherein n is 1, 2 or 3;
 -SO₂-NR-(CH₂)_n-, wherein R is hydrogen, alkyl, cycloalkyl, benzyl or aryl, and n is 1 or 2;
 -SO-NR-(CH₂)_n-, wherein R is hydrogen, alkyl, cycloalkyl, benzyl or aryl, and n is 1 or 2;
 -SO₂-(CH₂)_n-, wherein n is 2 or 3;
 -SO-(CH₂)_n-, wherein n is 2 or 3;
 10 -CO-CH=CH-NH-;
 -CO-CH=CH-O-;
 -CO-(CH₂)_n-NH-, wherein n is 1 or 2;
 -CO-NH-(CH₂)_n-, wherein n is 1 or 2;
 -CO-(CH₂)₂-O-; or
 15 -O-(CH₂)_n-O-, wherein n is 1, 2 or 3; and

R^8 represents hydrogen, alkyl, alkoxy, hydroxyalkyl, halogen, haloalkyl, CN, cyanoalkyl, nitro, or nitroalkyl; or

20 R^8 represents aryl,
 optionally substituted one or more times with substituents selected from the group consisting of halogen, -CF₃, -OCF₃, -NO₂, alkyl, cycloalkyl, and alkoxy; or

R^8 represents HET,
 25 optionally substituted one or more times with substituents selected from the group consisting of halogen, -CF₃, -OCF₃, -NO₂, alkyl, cycloalkyl, and alkoxy; or

R^8 represents -(alkyl)_m-S-R¹⁹, -(alkyl)_m-SO-R¹⁹, -(alkyl)_m-SO₂-R¹⁹, -(alkyl)_m-SO₂OR¹⁹,
 -(alkyl)_m-SO₂-NR¹⁹R²⁰, -(alkyl)_mNHCOR¹⁹, -(alkyl)_mCONR¹⁹R²⁰, -(alkyl)_m-CR'=NOR'',
 30 -(alkyl)_m-CO-R¹⁹, or -(alkyl)_m-CO₂-R¹⁹,
 wherein
 m is 0 or 1; and
 R' and R'' independently represents hydrogen, alkyl, cycloalkyl, alkenyl, alkynyl, aryl, or benzyl; and

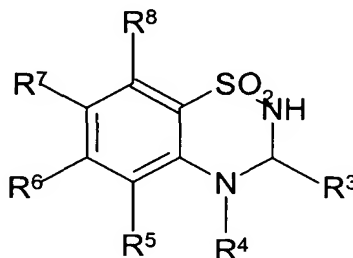
R^{19} and R^{20} independently represents hydrogen, alkyl, cycloalkyl, benzyl, or aryl, or R^{19} and R^{20} together with the nitrogen to which they are attached form a heterocyclic 3- to 8-membered ring structure,

which ring structure is optionally substituted with halogen, alkyl, alkenyl, alkynyl, hydroxy, alkoxy, amino, thio, aryl, benzyl, $-\text{SO}_2$ -alkyl, $-\text{SO}_2$ -aryl, or $-\text{SO}_2$ -benzyl, and optionally the heterocyclic ring is fused to an aryl;

provided however,

if X represents SO_2 , and Y represents NR^4 , and
if one of R^5 , R^6 , R^7 or R^8 is halogen or alkyl or alkoxy,
then one or more of the remainder of R^5 , R^6 , R^7 or R^8 is/are not also halogen or alkyl,
and then one or more of the remainder of R^5 , R^6 , R^7 or R^8 is/are not hydrogen.

The compound of according to claim 1, being a 1,2,4-benzothiadiazine derivative having the general formula (II)



wherein

R^3 represents hydrogen, cycloalkyl, cycloalkylalkyl, alkyl, haloalkyl, alkoxy, a carbocyclic 7- to 10- membered ring, a heterocyclic 5- to 6 membered ring, or benzyl; or

R^3 together with R^4 forms a 5- to 6- membered ring; and

R^4 represents hydrogen, or alkyl, or

R^4 together with R^3 , and together with the atoms to which they are attached, forms a 5- to 6- membered ring,

which ring is optionally substituted one or more times with substituents selected from halogen, alkyl, alkenyl, alkynyl, hydroxy, alkoxy, amino, and thio, and optionally containing one or more heteroatoms and optionally containing carbonyl groups; and

5 R^5 represents

hydrogen, halogen, alkyl, alkenyl, alkynyl, phenyl, or $-\text{SO}_2-\text{NR}^{11}\text{R}^{12}$,

wherein R^{11} and R^{12} independently represents hydrogen, alkyl, cycloalkyl, benzyl, or aryl; or

10 R^{11} and R^{12} , together with the nitrogen to which they are attached, form a heterocyclic 5- to 6-membered ring structure;

R^6 represents hydrogen, Br, F, I, cycloalkyl, alkyl, alkoxy, or alkoxyalkyl; or

R^6 represents phenyl,

15 which phenyl is optionally substituted one or more times with substituents selected from the group consisting of alkyl, and alkoxy; or

R^6 represents HET; or R^6 represents $-\text{S}-\text{R}^{15}$, $-\text{SO}-\text{R}^{15}$, $-\text{SO}_2-\text{R}^{15}$, $-\text{SO}_2\text{OR}^{15}$, $-\text{SO}_2-\text{NR}^{15}\text{R}^{16}$, $-\text{NHCOR}^{15}$, $-\text{CONR}^{15}\text{R}^{16}$, $-\text{CR}'=\text{NOR}''$, $-\text{CO}-\text{R}^{15}$, or $-\text{CO}_2-\text{R}^{15}$,

20 wherein

R' and R'' independently represents hydrogen, alkyl, cycloalkyl, phenyl, or benzyl; and

R^{15} and R^{16} independently represents hydrogen, alkyl, cycloalkyl, benzyl, or aryl; or

R^{15} and R^{16} , together with the nitrogen to which they are attached, form a heterocyclic 3- to 8-membered ring structure,

25 which ring structure is optionally substituted with halogen, alkyl, alkenyl, alkynyl, hydroxy, alkoxy, amino or thio, phenyl, benzyl, $-\text{SO}_2$ -alkyl, $-\text{SO}_2$ -aryl, $-\text{SO}_2$ -benzyl; and optionally the heterocyclic ring is fused to an aryl; and

R^7 represents Br, F, I, alkyl, cyano, cyanoalkyl, nitroalkyl, alkoxy, haloalkoxy, haloalkyl,

30 hydroxyalkyl, cycloalkyl, cyclohaloalkyl, $-(\text{alkyl})_m-\text{NR}^{17}\text{R}^{18}$, $-\text{NHSO}_2-\text{R}^{17}$, $-\text{S}-\text{R}^{17}$, $-\text{SO}-\text{R}^{17}$, $-\text{SO}_2-\text{R}^{17}$, $-\text{SO}_2\text{OR}^{17}$, $-\text{NHCOR}^{17}$, $-\text{CONR}^{17}\text{R}^{18}$, $-\text{CR}'=\text{NOR}''$, $-\text{CO}-\text{R}^{17}$, or $-\text{CO}_2-\text{R}^{17}$;

wherein

R' and R'' independently represents hydrogen, alkyl, cycloalkyl, phenyl, or benzyl; and

R^{17} and R^{18} independently represents hydrogen, alkyl, cycloalkyl, benzyl, or aryl; or

R^{17} and R^{18} , together with the nitrogen to which they are attached, form a heterocyclic 3- to 8-membered ring structure,

which ring structure is optionally substituted with alkyl, $-\text{SO}_2$ -alkyl, $-\text{SO}_2$ -aryl, $-\text{SO}_2$ -benzyl, and optionally the heterocyclic ring is fused to an aryl; or

5

R^7 represents $-(\text{alkyl})_m-\text{SO}_2-\text{NR}^{17}\text{R}^{18}$,

wherein

m is 0 or 1; and

R^{17} and R^{18} independently of each other represents alkyl, cycloalkyl, benzyl, or aryl; or

10

R^{17} and R^{18} together with the nitrogen to which they are attached form a heterocyclic 3- to 8-membered ring structure,

which ring structure is optionally substituted with halogen, alkyl, alkenyl, alkynyl, hydroxy, alkoxy, amino, thio, aryl, benzyl, $-\text{SO}_2$ -alkyl, $-\text{SO}_2$ -aryl, or $-\text{SO}_2$ -benzyl, and optionally the heterocyclic ring is fused to an aryl; or

15

R^7 represents HET,

which HET is optionally substituted one or more times with substituents selected from halogen, alkyl, phenyl, and $-\text{SO}_2\text{NR}^{17}\text{R}^{18}$; or

20

R^7 represents phenyl,

which phenyl is optionally substituted one or more times with substituents selected from the group consisting of alkyl, hydroxy, alkoxy, halogen, haloalkyl, amino, $-\text{NHCO}$ -alkyl, nitro, $-\text{OCF}_3$, or $-\text{SO}_2-\text{NR}^{17}\text{R}^{18}$,

wherein R^{17} and R^{18} independently represents hydrogen, alkyl, cycloalkyl, benzyl, or aryl;

25

or

R^{17} and R^{18} , together with the nitrogen to which they are attached, form a heterocyclic 3- to 8-membered ring structure,

which ring structure is optionally substituted with halogen, alkyl, $-\text{SO}_2$ -alkyl, $-\text{SO}_2$ -aryl, $-\text{SO}_2$ -benzyl, and optionally the heterocyclic ring is fused to an aryl; or

30

R^7 together with R^6 , or together with R^8 , forms a 5- to 7-membered ring having the one of the following structures

$-\text{O}-(\text{CH}_2)_n-\text{O}-$, wherein n is 1, 2 or 3;

$-\text{SO}_2-\text{NR}-(\text{CH}_2)_n-$, wherein R is hydrogen, alkyl, cycloalkyl, benzyl or aryl, and n is 1 or 2;

35

$-\text{SO}-\text{NR}-(\text{CH}_2)_n-$, wherein R is hydrogen, alkyl, cycloalkyl, benzyl or aryl, and n is 1 or 2;

- SO₂-(CH₂)_n-, wherein n is 2 or 3;
 -SO-(CH₂)_n-, wherein n is 2 or 3;
 -CO-CH=CH-NH-;
 -CO-CH=CH-O-;
- 5 -CO-(CH₂)_n-NH-, wherein n is 1 or 2;
 -CO-NH-(CH₂)_n, wherein n is 1 or 2;
 -CO-(CH₂)₂-O-; or
 -O-(CH₂)_n-O-, wherein n is 1, 2 or 3; and
- 10 R⁸ represents hydrogen, alkyl, alkoxy, hydroxyalkyl, halogen, haloalkyl, CN, cyanoalkyl, nitro, or nitroalkyl; or
- R⁸ represents phenyl,
 which phenyl is optionally substituted one or more times with substituents selected from
 15 the group consisting of alkyl, cycloalkyl, and alkoxy; or
- R⁸ represents HET; or
- R⁸ represents -S-R¹⁹, -SO-R¹⁹, -SO₂-R¹⁹, -SO₂OR¹⁹, -SO₂-NR¹⁹R²⁰, -NHCOR¹⁹, -CONR¹⁹R²⁰,
 20 -CR'=NOR'', -CO-R¹⁹, or -CO₂-R¹⁹,
 wherein
 R' and R'' independently represents hydrogen, alkyl, cycloalkyl, phenyl, or benzyl; and
 R¹⁹ and R²⁰ independently represents hydrogen, alkyl, cycloalkyl, benzyl, or aryl; or
 R¹⁹ and R²⁰, together with the nitrogen to which they are attached, form a heterocyclic 3-
 25 to 8-membered ring structure,
 which ring structure is optionally substituted with halogen, alkyl, alkenyl, alkynyl, hydroxy, alkoxy, amino or thio, phenyl, benzyl, -SO₂-alkyl, -SO₂-aryl, -SO₂-benzyl, and optionally the heterocyclic ring is fused to an aryl;
- 30 3. The compound of formula (I) according to claim 1, wherein
 R² represents hydrogen, alkyl, cycloalkyl, phenyl, or benzyl.
4. The compound according to claim 1 wherein
 R³ represents hydrogen, cycloalkyl, alkyl, haloalkyl, alkoxy, a carbocyclic 7- to 10-
 35 membered ring, a heterocyclic 5- to 6-membered ring, or benzyl; or

- R³ together with R⁴ forms a 5- to 6- membered ring,
 which ring is optionally substituted one or more times with substituents selected from
 halogen, alkyl, alkenyl, alkynyl, hydroxy, alkoxy, amino, and thio, and optionally
 5 containing one or more heteroatoms and optionally containing carbonyl groups.
5. The compound according to claim 1 wherein
 R⁴ represents hydrogen, or alkyl; or
 R⁴ together with R³, and together with the atoms to which they are attached, forms a 5-
 10 to 6- membered ring,
 which ring is optionally substituted one or more times with substituents selected from
 halogen, alkyl, alkenyl, alkynyl, hydroxy, alkoxy, amino, and thio, and optionally
 containing one or more heteroatoms and optionally containing carbonyl groups.
- 15 6. The compound according to claim 1 wherein
 R⁵ represents hydrogen, halogen, alkyl, alkenyl, alkynyl, phenyl, or
 -SO₂-NR¹¹R¹²,
 wherein
 R¹¹ and R¹² independently represents hydrogen, alkyl, cycloalkyl, benzyl, or aryl; or
 20 R¹¹ and R¹², together with the nitrogen to which they are attached, form a heterocyclic 3-
 to 8-membered ring structure.
7. The compound according to claim 1, wherein
 R⁶ represents hydrogen, halogen, cycloalkyl, alkyl, alkoxy, or alkoxyalkyl; or
 25 R⁶ represents aryl,
 which aryl is optionally substituted one or more times with substituents selected from the
 group consisting of alkyl, and alkoxy; or
- 30 R⁶ represents HET; or
- R⁶ represents -S-R¹⁵, -SO-R¹⁵, -SO₂-R¹⁵, -SO₂OR¹⁵, -SO₂-NR¹⁵R¹⁶, -NHCOR¹⁵, -CONR¹⁵R¹⁶,
 -CR'=NOR'', -CO-R¹⁵, or -CO₂-R¹⁵,
 wherein
 35 R' and R'' independently represents hydrogen, alkyl, cycloalkyl, phenyl, or benzyl; and

R^{15} and R^{16} independently represents hydrogen, alkyl, cycloalkyl, benzyl, or aryl; or R^{15} and R^{16} , together with the nitrogen to which they are attached, form a heterocyclic 3- to 8-membered ring structure,

which ring structure is optionally substituted with halogen, alkyl, alkenyl, alkynyl, hydroxy, alkoxy, amino or thio, phenyl, benzyl, $-SO_2$ -alkyl, $-SO_2$ -aryl, or $-SO_2$ -benzyl, and optionally the heterocyclic ring is fused to an aryl.

8. The compound according to claim 1 wherein

R^7 represents halogen, alkyl, cyano, cyanoalkyl, alkoxy, haloalkoxy, haloalkyl, hydroxyalkyl, cycloalkyl, cyclohaloalkyl, $-(alkyl)_m-NR^{17}R^{18}$, $-NHSO_2-R^{17}$, $-S-R^{17}$, $-SO-R^{17}$, $-SO_2-R^{17}$, $-SO_2OR^{17}$, $-NHCOR^{17}$, $-CONR^{17}R^{18}$, $-CR'=NOR''$, $-CO-R^{17}$, or $-CO_2-R^{17}$, wherein

R' and R'' independently represents hydrogen, alkyl, cycloalkyl, phenyl, or benzyl; and R^{17} and R^{18} independently represents hydrogen, alkyl, cycloalkyl, benzyl, or aryl; or R^{17} and R^{18} , together with the nitrogen to which they are attached, form a heterocyclic 3- to 8-membered ring structure, which ring structure is optionally substituted with alkyl, $-SO_2$ -alkyl, $-SO_2$ -aryl, $-SO_2$ -benzyl, and optionally the heterocyclic ring is fused to an aryl; or

20 R^7 represents $-(alkyl)_m-SO_2-NR^{17}R^{18}$, wherein

m is 0 or 1; and

R^{17} and R^{18} independently represents alkyl, cycloalkyl, benzyl, or aryl; or R^{17} and R^{18} , together with the nitrogen to which they are attached, form a heterocyclic 3- to 8-membered ring structure, which ring structure is optionally substituted with alkyl, $-SO_2$ -alkyl, $-SO_2$ -aryl, or $-SO_2$ -benzyl, and optionally the heterocyclic ring is fused to an aryl; or

R^7 represents HET,

30 which HET is optionally substituted one or more times with substituents selected from halogen, alkyl, phenyl, or $-SO_2NR^{17}R^{18}$, wherein

R^{17} and R^{18} independently represents hydrogen, alkyl, cycloalkyl, benzyl, or aryl; or R^{17} and R^{18} , together with the nitrogen to which they are attached, form a heterocyclic 3- to 8-membered ring structure,

which ring structure is optionally substituted with halogen, alkyl, -SO₂-alkyl, -SO₂-aryl, or -SO₂-benzyl, and optionally the heterocyclic ring is fused to an aryl; or

R⁷ represents phenyl optionally substituted one or more times with substituents selected from the group consisting of alkyl, hydroxy, alkoxy, halogen, haloalkyl, amino, NHCO-alkyl, nitro, OCF₃, -SO₂-NR¹⁷R¹⁸,
 5 wherein
 R¹⁷ and R¹⁸ independently represents hydrogen, alkyl, cycloalkyl, benzyl, or aryl; or
 R¹⁷ and R¹⁸, together with the nitrogen to which they are attached, form a heterocyclic 3-
 10 to 8-membered ring structure,
 which ring structure is optionally substituted with halogen, alkyl, -SO₂-alkyl, -SO₂-aryl, or -SO₂-benzyl, and optionally the heterocyclic ring is fused to an aryl; or

R⁷ together with R⁶, or together with R⁸, forms a 5- to 7-membered ring having the one of
 15 the following structures
 -O-(CH₂)_n-O-, wherein n is 1, 2 or 3;
 -SO₂-NR-(CH₂)_n-, wherein R is hydrogen, alkyl, cycloalkyl, benzyl or aryl, and n is 1 or 2;
 -SO-NR-(CH₂)_n-, wherein R is hydrogen, alkyl, cycloalkyl, benzyl or aryl, and n is 1 or 2;
 -SO₂-(CH₂)_n-, wherein n is 2 or 3;
 20 -SO-(CH₂)_n-, wherein n is 2 or 3;
 -CO-CH=CH-NH-;
 -CO-CH=CH-O-;
 -CO-(CH₂)_n-NH-, wherein n is 1 or 2;
 -CO-NH-(CH₂)_n-, wherein n is 1 or 2;
 25 -CO-(CH₂)₂-O-; or
 -O-(CH₂)_n-O-, wherein n is 1, 2 or 3.

9. The compound according to claim 1, wherein

R⁸ represents hydrogen, alkyl, alkoxy, hydroxyalkyl, halogen, haloalkyl, CN, cyanoalkyl,
 30 nitro, or nitroalkyl; or

R⁸ represents phenyl,
 which phenyl is optionally substituted one or more times with substituents selected from
 the group consisting of alkyl, cycloalkyl, and alkoxy; or

R⁸ represents HET; or

R⁸ represents -S-R¹⁹, -SO-R¹⁹, -SO₂-R¹⁹, -SO₂OR¹⁹, -SO₂-NR¹⁹R²⁰, -NHCOR¹⁹, -CONR¹⁹R²⁰, -CR'=NOR'', -CO-R¹⁹, or -CO₂-R¹⁹,

5 wherein

R' and R'' independently represents hydrogen, alkyl, cycloalkyl, phenyl, or benzyl; and

R¹⁹ and R²⁰ independently represents hydrogen, alkyl, cycloalkyl, benzyl, or aryl; or

R¹⁹ and R²⁰, together with the nitrogen to which they are attached, form a heterocyclic 3- to 8-membered ring structure,

10 which ring structure is optionally substituted with halogen, alkyl, alkenyl, alkynyl, hydroxy, alkoxy, amino or thio, phenyl, benzyl, -SO₂-alkyl, -SO₂-aryl, or -SO₂-benzyl, and optionally the heterocyclic ring is fused to an aryl.

10. The compound according to claim 1 wherein

15 X represents SO₂; and

Y represents N; and

R² represents H; and

20 R³ represents cycloalkyl, a carbocyclic 7- to 10-membered ring, a heterocyclic 5- to 6-membered ring; and

R⁴ represents H; and

25 R⁵ represents H; and

R⁶ represents hydrogen, alkyl or halogen; and

30 R⁷ represents cyanoalkyl, nitroalkyl, haloalkyl, or -(alkyl)_m-SO-R¹⁷, -(alkyl)_m-SO₂-R¹⁷, -(alkyl)_mCONR¹⁷R¹⁸, -(alkyl)_m-CR'=NOR'', -(alkyl)_m-CO-R¹⁷, or -(alkyl)_mCO₂-R¹⁷,
wherein

m is 0 or 1; and

R' and R'' independently represents hydrogen, alkyl, cycloalkyl, phenyl, or benzyl; and

R^{17} and R^{18} independently represents hydrogen, alkyl, cycloalkyl, benzyl, or aryl; or R^{17} and R^{18} , together with the nitrogen to which they are attached, form a heterocyclic 3- to 8-membered ring structure,

which ring structure is optionally substituted with alkyl, $-\text{SO}_2$ -alkyl, $-\text{SO}_2$ -aryl, or $-\text{SO}_2$ -benzyl, and optionally the heterocyclic ring is fused to an aryl; or

R^7 represents $-(\text{alkyl})_m-\text{SO}_2-\text{NR}^{17}\text{R}^{18}$,

wherein

m is 0 or 1; and

R^{17} and R^{18} independently represents alkyl, cycloalkyl, benzyl, or aryl; or R^{17} and R^{18} , together with the nitrogen to which they are attached, form a heterocyclic 3- to 8-membered ring structure, which ring structure is optionally substituted with alkyl, $-\text{SO}_2$ -alkyl, $-\text{SO}_2$ -aryl, or $-\text{SO}_2$ -benzyl, and optionally the heterocyclic ring is fused to an aryl; or

R^7 represents HET; or

R^7 together with R^6 , or together with R^8 , forms a 5- to 7-membered ring having the one of the following structures

$-\text{O}-(\text{CH}_2)_n-\text{O}-$, wherein n is 1, 2 or 3;
 $-\text{SO}_2-\text{NR}-(\text{CH}_2)_n-$, wherein R is hydrogen, alkyl, cycloalkyl, benzyl or aryl, and n is 1 or 2;
 $-\text{SO}-\text{NR}-(\text{CH}_2)_n-$, wherein R is hydrogen, alkyl, cycloalkyl, benzyl or aryl, and n is 1 or 2;
 $-\text{SO}_2-(\text{CH}_2)_n-$, wherein n is 2 or 3;
 $-\text{SO}-(\text{CH}_2)_n-$, wherein n is 2 or 3;
 $-\text{CO}-\text{CH}=\text{CH}-\text{NH}-$;
 $-\text{CO}-\text{CH}=\text{CH}-\text{O}-$;
 $-\text{CO}-(\text{CH}_2)_n-\text{NH}-$, wherein n is 1 or 2;
 $-\text{CO}-\text{NH}-(\text{CH}_2)_n$, wherein n is 1 or 2;
 $-\text{CO}-(\text{CH}_2)_2-\text{O}-$; or
 $-\text{O}-(\text{CH}_2)_n-\text{O}-$, wherein n is 1, 2 or 3; and

R^8 represents alkyl, halogen, cyanoalkyl, nitroalkyl, haloalkyl, $-(\text{alkyl})_m-\text{SO}-\text{R}^{17}$, $-(\text{alkyl})_m-\text{SO}_2-\text{R}^{17}$, $-(\text{alkyl})_m-\text{SO}_2-\text{NR}^{17}\text{R}^{18}$, $-(\text{alkyl})_m-\text{CONR}^{17}\text{R}^{18}$, $-(\text{alkyl})_m-\text{CR}'=\text{NOR}''$, $-(\text{alkyl})_m-\text{CO}-\text{R}^{17}$, or $-(\text{alkyl})_m-\text{CO}_2-\text{R}^{17}$,

wherein

m is 0 or 1;

R' and R'' independently represents hydrogen, alkyl, cycloalkyl, phenyl, or benzyl; and

R¹⁷ and R¹⁸ independently represents hydrogen, alkyl, cycloalkyl, benzyl, or aryl; or

5 R¹⁷ and R¹⁸, together with the nitrogen to which they are attached, forms a heterocyclic 3- to 8-membered ring structure,

which ring structure is optionally substituted with alkyl, -SO₂-alkyl, -SO₂-aryl, or -SO₂-benzyl, and optionally the heterocyclic ring is fused to an aryl; or

R⁸ represents HET.

10

11. The compound according to claim 1, wherein

R³ represents hydrogen, cyclopropyl, cyclopentyl, cyclohexyl, methyl, ethyl, propyl, isopropyl, CF₃, ethoxy, norbornene, norbornane, adamantane, or benzyl; or

15 R³ together with R⁴, and together with the atoms to which they are attached, forms a 5-membered ring.

12. The compound according to claim 1, wherein

R⁴ represents hydrogen, methyl, or ethyl; or

20 R⁴ together with R³, and together with the atoms to which they are attached, forms a 5-membered ring.

13. The compound according to claim 1, wherein

R⁵ represents hydrogen, chloro, bromo, methyl, or phenyl.

25

14. The compound of formula I, according to claim 1, wherein

R⁶ represents hydrogen, 2-methoxyphenyl, 2-pyridyl, 3-pyridyl, methyl, methoxy, chloro or bromo.

/

30 15. The compound of formula I, according to claim 1, wherein

R⁷ represents chloro, bromo, methyl, 1-hydroxyethyl, acetyl, -(CH₃)C=N-OH, -CONH₂, -CO₂-ethyl, cyano, phenyl, 2-N-acetylaminophenyl, 2-nitrophenyl, 2-methoxyphenyl, 4-trifluoromethyl-2-methoxyphenyl, 2,4-dimethoxyphenyl, 2-N,N-dimethylsulfamoylphenyl, 2-chlorophenyl, 2-fluorophenyl, 3-hydroxyphenyl, 2-pyridyl, 3-pyridyl, 2-pyrimidyl, 2-furyl, 35 3-furyl, 2-thienyl, 2-(N-methyl)-imidazolyl, 5-triazolyl, 4-phenyl-triazol-5-yl, 5-methyl-

- 1,2,4-oxadiazol-3-yl, $\text{CH}_3\text{CONH-}$, $\text{CH}_3\text{SO}_2\text{NH-}$, $-\text{SO}_2\text{OH}$, phenyl- SO_2- , N,N-dimethylsulfamoyl, N,N-diethylsulfamoyl, N-phenyl-N-methyl-sulfamoyl, or $-\text{SO}_2$ -heterocyclic ring, wherein the heterocyclic rings are selected from the group of piperidine, pyrrolidine, 1,2,5,6-tetrahydropyridine, tetrahydroquinoline, N-methylpiperazine, N-sulfonylmethyl-piperazine, and morpholine.
16. The compound of formula I according to claim 1 wherein R^8 represents hydrogen, methyl, hydroxymethyl, 2-methoxyphenyl, 3-methoxyphenyl, 2-pyridyl, or methoxy.
17. The compound of formula II according to claim 2, wherein R^2 represents hydrogen or CH_3 ; and R^3 represents cyclohexyl, cyclopentyl, norbornene, norbornane, adamantane, or ethoxy; and R^4 represents hydrogen or CH_3 ; and R^5 represents hydrogen, CH_3 , phenyl, sulfamoyl, chloro, or bromo; and R^6 represents hydrogen, CH_3 , 2-methoxyphenyl, methoxy, chloro, bromo, 2-pyridyl, or 3-pyridyl; and R^7 represents chloro, bromo, methyl, 1-hydroxyethyl, acetyl, $-(\text{CH}_3)\text{C}=\text{N-OH}$, $-\text{CONH}_2$, $-\text{CO}_2\text{-ethyl}$, cyano, phenyl, 2-N-acetylaminophenyl, 2-nitrophenyl, 2-methoxyphenyl, 4-trifluoromethyl-2-methoxyphenyl, 2,4-dimethoxyphenyl, 2-N,N-dimethylsulfamoylphenyl, 2-chlorophenyl, 2-fluorophenyl, 3-hydroxyphenyl, 2-pyridyl, 3-pyridyl, 2-pyrimidyl, 2-furyl, 3-furyl, 2-thienyl, 2-(N-methyl)-imidazolyl, 5-triazolyl, 4-phenyl-triazol-5-yl, 5-methyl-1,2,4-oxadiazol-3-yl, $-\text{CH}_3\text{CONH-}$, $-\text{CH}_3\text{SO}_2\text{NH-}$, $-\text{SO}_2\text{OH}$, phenyl- SO_2- , N,N-dimethylsulfamoyl, N,N-diethylsulfamoyl, N-phenyl-N-methyl-sulfamoyl, or $-\text{SO}_2$ -heterocyclic ring, wherein the heterocyclic rings are selected from the group of piperidine, pyrrolidine, 1,2,5,6-tetrahydropyridine, tetrahydroquinoline, N-methylpiperazine, N-sulfonylmethyl-piperazine, and morpholine; and R^8 represents methyl, hydroxymethyl, 2-methoxyphenyl, 3-methoxyphenyl, 2-pyridyl, or methoxy.
18. The compound of formula I according to claim 1, wherein X is $\text{C}=\text{O}$; and Y is N, O or CH; and

R² represents hydrogen; and

R³ represents hydrogen, CH₃, CF₃, cyclohexyl, norbornene, phenyl, or ethyl; and

R⁷ represents hydrogen, N,N-dimethylsulfamoyl, N-cyclohexylsulfamoyl, tetrahydropyrid-1-yl-sulfuric acid, morpholin-4-yl-sulfuric acid, sulfamoyl, bromo; and

5 R⁵ represents hydrogen or bromo; and

R⁴, R⁶ and R⁸ all represent hydrogen.

19. The compound of formula I according to claim 1, wherein
X represents CH₂; and

10 Y is N; and

R³ represents cyclohexyl or norbornene; and

R⁵ represents hydrogen or bromo; and

R⁷ represents bromo or sulfamoyl; and

R², R⁴, R⁶ and R⁸ all represent hydrogen.

15

20. The compound of formula I according to claim 1, wherein X is SO₂; and
N is -NHCH₂-; and

R³ represents 3-methylbut-2-yl, phenyl or cyclohexyl; and

R⁷ represents 1-piperidinyl-sulfuric acid.

20

21. The compound of formula I according to claim 1, said compound being:

2-Cyclohexyl-4-oxo-1,2,3,4-tetrahydroquinazoline;

2-Phenyl-4-oxo-1,2,3,4-tetrahydroquinazoline;

2-Methyl-3,4-dihydro-1,3-benzoxazine-4-one;

25 2-Phenyl-3,4-dihydro-1,3-benzoxazine-4-one;

2-Ethyl-2-methyl-3,4-dihydro-1,3-benzoxazine-4-one;

2-Methyl-4-oxo-3,4-dihydro-6-quinazoline-*N,N*-dimethylsulfonamide;

2-Trifluoromethyl-4-oxo-3,4-dihydro-6-quinazoline sulfonamide;

2-Trifluoromethyl-4-oxo-3,4-dihydro-6-quinazoline *N,N*-dimethylsulfonamide;

30 2-Trifluoromethyl-4-oxo-3,4-dihydro-6-quinazoline-1',2',3',6'-

tetrahydropiperidinosulfonamide;

2-Trifluoromethyl-4-oxo-3,4-dihydro-6-quinazoline *N*-cyclohexylsulfonamide;

2-Trifluoromethyl-4-oxo-3,4-dihydro-6-quinazoline morpholinosulfonamide;

2-Cyclohexyl-4-oxo-3,4-dihydro-6-quinazoline-*N,N*-dimethylsulfonamide;

35 2-Trifluoromethyl-4-oxo-3,4-dihydro-6-quinazolinesulfonic acid;

2-cyclohexylmethylamino-5-*N,N*-dimethylsulfamoylbenzenesulfonamide; or
 2-Ethylamino-7-(1',2',3',6'-tetrahydropiperidino)sulfonylbenzene sulfonamide;
 or a pharmaceutical acceptable salt thereof.

- 5 22. The 1,2,4-benzothiadiazine derivative according to claim 2, said compound being:
 3-Bicyclo[2.2.1]hept-5'-en-2'-yl-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
 1,2,3,5,10,10a-Hexahydrobenzo[e]pyrrolo[1,2-*b*]-1,2,4-thiadiazine-5,5-dioxide;
 3-Cyclohexyl-6-(2-methoxyphenyl)-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
 3-Cyclohexyl-6-(2-pyridyl)-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
 10 3-Cyclohexyl-6-(3-pyridyl)-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
 3-Cyclohexyl-7-(1-hydroxyethyl)-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
 3-Cyclohexyl-7-acetyl-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
 3-Cyclohexyl-7-(1-hydroxyiminoethyl)-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-
 dioxide;
 15 3-Cyclohexyl-7-carbamoyl-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
 3-Cyclohexyl-7-ethoxycarbonyl-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
 3-Cyclohexyl-7-cyano-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
 3-Bicyclo[2.2.1]hept-5'-en-2'-yl-7-phenyl-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-
 dioxide;
 20 3-Cyclohexyl-7-(2'-acetamidophenyl)-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-
 dioxide;
 3-Cyclohexyl-7-(2'-nitrophenyl)-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
 3-Cyclohexyl-7-(2'-methoxyphenyl)-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-
 dioxide;
 25 3-Cyclohexyl-7-(2'-methoxy-4'-trifluoromethylphenyl)-1,2,3,4-tetrahydro-1,2,4-
 benzothiadiazine-1,1-dioxide;
 3-Cyclohexyl-7-(2',4'-dimethoxyphenyl)-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-
 dioxide;
 3-Cyclohexyl-7-(2'-(*N,N*-dimethylsulfamoyl)phenyl)-1,2,3,4-tetrahydro-1,2,4-
 30 benzothiadiazine-1,1-dioxide;
 3-Cyclohexyl-7-(2'-chlorophenyl)-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
 3-Cyclohexyl-7-(2'-fluorophenyl)-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
 3-Cyclohexyl-7-(3'-hydroxyphenyl)-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
 3-Cyclohexyl-7-(2'-pyridyl)-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
 35 3-Cyclohexyl-7-(3'-pyridyl)-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;

- 3-Cyclohexyl-7-(2'-pyrimidinyl)-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
 3-Cyclohexyl-7-(2'-furyl)-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
 3-Cyclohexyl-7-(3'-furyl)-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
 3-Cyclohexyl-7-(2'-thienyl)-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
 5 3-Cyclohexyl-7-(1-methyl-1*H*-2-imidazolyl)-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
 3-Cyclohexyl-7-(1',2',3'-triazol-4'-yl)-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
 3-Cyclohexyl-7-(5'-phenyl-1',2',3'-triazol-4'-yl)-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-
 10 1,1-dioxide;
 3-Cyclohexyl-7-(5'-methyl-1',2',4'-oxadiazol-3-yl)-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
 3-Cyclohexyl-7-acetamido-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
 3-Cyclohexyl-7-methylsulfonylamino-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
 15 3-Cyclohexyl-7-phenylsulfonyl-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
 2-Cyclohexyl-1,2,3,4-tetrahydro-6-quinazoline sulfonamide;
 3-Methyl-7-dimethylsulfamoyl-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
 2-Cyclohexyl-1,2,3,4-tetrahydro-6-quinazoline *N,N*-dimethylsulfonamide;
 20 3-Cyclohexyl-7-dimethylaminosulfonyl-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
 3-Cyclohexyl-7-(*N,N*-diethylamino)sulfonyl-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
 3-Cyclohexyl-7-pyrrolidinosulfonyl-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
 25 3-Methyl-7-piperidinosulfonyl-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
 3-Cyclopropyl-7-piperidinosulfonyl-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
 3-Isopropyl-7-piperidinosulfonyl-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
 3-propyl-7-piperidinosulfonyl-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
 3-Benzyl-7-piperidinosulfonyl-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
 30 3-Cyclopentyl-7-piperidinosulfonyl-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
 3-Cyclohexyl-7-piperidinosulfonyl-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
 3-Bicyclo[2.2.1]hept-5'-en-2'-yl-7-piperidinosulfonyl-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
 3-Cyclohexyl-7-(1',2',3',6'-tetrahydropiperidino)sulfonyl-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
 35

- 3-Cyclohexyl-7-(*N*-methyl-*N*-phenylamino)sulfonyl-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
- 3-Cyclohexyl-7-(1'-(1',2',3',4'-tetrahydroquinolinyl))sulfonyl-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
- 5 3-Cyclohexyl-7-(4'-methylpiperazino)sulfonyl-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
- 3-Cyclohexyl-7-(4'-methylsulfonylpiperazino)sulfonyl-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
- 10 3-Cyclohexyl-7-morpholinosulfonyl-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
- 3-Methyl-7-dimethylsulfamoyl-1,2-dihydro-1,2,4-benzothiadiazine-1,1-dioxide;
- 3-Methyl-7-(1',2',3',6'-tetrahydropiperidino)sulfonyl-1,2-dihydro-1,2,4-benzothiadiazine-1,1-dioxide;
- 3-Trifluoromethyl-7-dimethylsulfamoyl-1,2-dihydro-1,2,4-benzothiadiazine-1,1-dioxide;
- 15 3-Cyclohexyl-8-methyl-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
- 3-Cyclohexyl-8-hydroxymethyl-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
- 3-Cyclohexyl-8-(2-methoxyphenyl)-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
- 3-Cyclohexyl-8-(3-methoxyphenyl)-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
- 3-Cyclohexyl-8-(2-pyridyl)-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
- 20 3-Cyclohexyl-8-methoxy-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
- 5,7-Dibromo-1,2-dihydro-1,2,4-benzothiadiazine-1,1-dioxide;
- 3-Cyclohexyl-2-methyl-7-morpholinosulfonyl-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
- 3-Cyclohexyl-4-methyl-7-morpholinosulfonyl-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;
- 25 7-Methylsulfonylamino-1,2,3,3a,4,5-hexahydrobenzo[e]pyrrolo[2,1-c]-1,2,4-thiadiazine-5,5-dioxide;
- 7-Sulfamoyl-1,2,3,3a,4,5-hexahydrobenzo[e]pyrrolo[2,1-c]-1,2,4-thiadiazine-5,5-dioxide;
- 7-Methylsulfamoyl-1,2,3,3a,4,5-hexahydrobenzo[e]pyrrolo[2,1-c]-1,2,4-thiadiazine-5,5-dioxide;
- 30 7-Dimethylsulfamoyl-1,2,3,3a,4,5-hexahydrobenzo[e]pyrrolo[2,1-c]-1,2,4-thiadiazine-5,5-dioxide;
- 7-Dimethylsulfamoyl-1,2,3,5-tetrahydrobenzo[e]pyrrolo[2,1-c]-1,2,4-thiadiazine-5,5-dioxide;

7-(1',2',3',6'-Tetrahydropiperidino)sulfonyl-1,2,3,5-tetrahydrobenzo[e]pyrrolo[2,1-c]-
1,2,4-thiadiazine-5,5-dioxide;

3-Bicyclo[2.2.1]hept-5'-en-2'-yl-5,7-dimethyl-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-
1,1-dioxide;

5 3-Cyclohexyl-7-(*N,N*-diethylsulphamoyl)-5-methyl-1,2,3,4-tetrahydro-1,2,4-
benzothiadiazine-1,1-dioxide;

3-Bicyclo[2.2.1]hept-5'-en-2'-yl-5,7-diphenyl-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-
1,1-dioxide;

10 3-Cyclohexyl-6-methyl-7-(2'-pyridyl)-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-
dioxide;

3-Cyclohexyl-6-methyl-7-(4'-triazolyl)-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-
dioxide;

3-Cyclopentyl-6-methyl-7-piperidinosulfonyl-1,2,3,4-tetrahydro-1,2,4-benzothia-diazine-
1,1-dioxide;

15 3-Cyclohexyl-6-methyl-7-morpholinosulfonyl-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-
1,1-dioxide;

3-Cyclohexyl-6-(2-methoxyphenyl)-7-methyl-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-
1,1-dioxide;

20 3-Cyclohexyl-6-methoxy-7-piperidinosulfonyl-1,2,3,4-tetrahydro-1,2,4-benzothia-diazine-
1,1-dioxide;

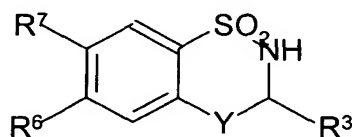
3-Cyclohexyl-7,8-ethylenedioxy-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide;

3-cyclohexyl-6,7-ethylenedioxy-1,2,3,4-tetrahydro-1,2,4-benzothiadiazine-1,1-dioxide; or

3-Isobutyl-8-(piperidinosulfonyl)-2,3,4,5-tetrahydro-1,2,5-benzothiadiazepine-1,1-dioxide;
or a pharmaceutical acceptable salt thereof.

25

23. A compound having the general formula (III)



30

wherein

Y represents CH(R⁴), N(R⁴) or N(R⁴)-CH₂, or O; and

R³ represents a carbocyclic 7- to 12- membered ring,

which carbocyclic ring is optionally substituted with halogen, alkyl, hydroxy or alkoxy; and

R^6 represents haloalkyl, and

5 R^7 represents halogen, alkyl, cyano, cyanoalkyl, nitroalkyl, alkoxy, haloalkoxy, haloalkyl, hydroxyalkyl, cycloalkyl, or cyclohaloalkyl, or

R^7 represents $-NR^{17}R^{18}$, $-NHSO_2-R^{17}$, or $-NHSO_2$ -aryl,

10 wherein the aryl is optionally substituted one or more times with substituents selected from halogen, alkyl, cycloalkyl, hydroxy, alkoxy, amino, thio, $-CF_3$, $-OCF_3$, $-NO_2$, and aryl; or

R^7 represents $-(alkyl)_m-S-R^{17}$, $-(alkyl)_m-SO-R^{17}$, $-(alkyl)_m-SO_2-R^{17}$, $-(alkyl)_m-SO_2OR^{17}$, $-(alkyl)_mNHCOR^{17}$, $-(alkyl)_mCONR^{17}R^{18}$, $-(alkyl)_m-CR'=NOR''$, $-(alkyl)_m-CO-R^{17}$, or $-(alkyl)_mCO_2-R^{17}$,

15 wherein

m is 0 or 1; and

R' and R'' independently represents hydrogen, alkyl, cycloalkyl, alkenyl, alkynyl, aryl, or benzyl; and

R^{17} and R^{18} independently represents hydrogen, alkyl, cycloalkyl, benzyl, or aryl, or

20 R^{17} and R^{18} together with the nitrogen to which they are attached forms a heterocyclic 3- to 8-membered ring structure,

which ring structure is optionally substituted with halogen, alkyl, alkenyl, alkynyl, hydroxy, alkoxy, amino, thio, aryl, benzyl, $-SO_2$ -alkyl, $-SO_2$ -aryl, or $-SO_2$ -benzyl, and optionally the heterocyclic ring is fused to an aryl; or

25

R^7 represents $-(alkyl)_m-SO_2-NR^{17}R^{18}$,

wherein

m is 0 or 1; and

R^{17} and R^{18} independently of each another represents alkyl, cycloalkyl, benzyl, or aryl; or

30

R^{17} and R^{18} together with the nitrogen to which they are attached form a heterocyclic 3- to 8-membered ring structure,

which ring structure is optionally substituted with halogen, alkyl, alkenyl, alkynyl, hydroxy, alkoxy, amino, thio, aryl, benzyl, $-SO_2$ -alkyl, $-SO_2$ -aryl, or $-SO_2$ -benzyl, and optionally the heterocyclic ring is fused to an aryl; or

35

R^7 represents HET,

optionally substituted one or more times with substituents selected from halogen, alkyl, alkenyl, alkynyl, hydroxy, alkoxy, amino, thio, aryl, -S-alkyl, -S-aryl, -SO-alkyl, -SO--aryl, -SO₂-alkyl, -SO₂-aryl, and -SO₂NR¹⁷R¹⁸; or

5 R^7 represents aryl,

optionally substituted one or more times with substituents selected from the group consisting of alkyl, alkenyl, alkynyl, hydroxy, alkoxy, hydroxyalkyl, halogen, haloalkyl, amino, -NHCO-alkyl, nitro, -OCF₃, and -SO₂-NR¹⁷R¹⁸,

wherein

10 R^{17} and R^{18} independently represents hydrogen, alkyl, cycloalkyl, benzyl, or aryl, or R^{17} and R^{18} together with the nitrogen to which they are attached form a heterocyclic 3- to 8-membered ring structure,

which ring structure is optionally substituted with halogen, alkyl, alkenyl, alkynyl, hydroxy, alkoxy, amino, thio, aryl, benzyl, -SO₂-alkyl, -SO₂-aryl, or -SO₂-benzyl, and optionally the

15 heterocyclic ring is fused to an aryl;

or

R^7 together with R^6 , or together with R^8 , forms a 5- to 7-membered ring having the one of the following structures

20 -O-(CH₂)_n-O-, wherein n is 1, 2 or 3;

-SO₂-NR-(CH₂)_n-, wherein R is hydrogen, alkyl, cycloalkyl, benzyl or aryl, and n is 1 or 2;

-SO-NR-(CH₂)_n-, wherein R is hydrogen, alkyl, cycloalkyl, benzyl or aryl, and n is 1 or 2;

-SO₂-(CH₂)_n-, wherein n is 2 or 3;

-SO-(CH₂)_n-, wherein n is 2 or 3;

25 -CO-CH=CH-NH-;

-CO-CH=CH-O-;

-CO-(CH₂)_n-NH-, wherein n is 1 or 2;

-CO-NH-(CH₂)_n, wherein n is 1 or 2;

-CO-(CH₂)₂-O-; or

30 -O-(CH₂)_n-O-, wherein n is 1, 2 or 3.

24. A pharmaceutical composition comprising an effective amount of a chemical compound according to claim 1, or a pharmaceutically acceptable salt thereof, or a pharmaceutically acceptable excipient, carrier or diluent.

25. The use of a compound according to claim 1, for the preparation of a medicament for the treatment of a disorder or disease of a living animal body, including a human, which disorder or disease is responsive to the modulation of the AMPA receptor complex of the central nervous system.

5

26. The use according to claim 25 for the preparation of a medicament for the treatment of a disorder or disease of a living animal body, including a human, which disorder or disease is responsive to modulation of the AMPA receptor complex of the central nervous system.

10

27. The use according to claim 25, wherein the disorders or diseases are selected from memory and learning disorders, psychotic disorder, sexual dysfunction, intellectual impairment disorders, schizophrenia, depression, autism, Alzheimer's disease, learning deficit, attention deficit, memory loss, and senile dementia; or from a disorder or disease resulting from trauma, stroke, epilepsy, Alzheimer's disease, neurotoxic agents, aging, neurodegenerative disorder, alcohol intoxication, substance abuse, cardiac bypass surgery, and cerebral ischemia.

15

28. A method of treating a disorder or disease of a living animal body, including a human, which disorder or disease is responsive to modulation of the AMPA receptor complex of the central nervous system, which method comprises administration of a therapeutically effective amount of a chemical compound according to claim 1.

20

29. The method according to claim 28, wherein the disorder or disease is responsive to modulation of the AMPA receptor complex of the central nervous system.

25

30. The method according to claim 28, wherein the disorder or disease is selected from memory and learning disorders, psychotic disorder, sexual dysfunction, intellectual impairment disorders, schizophrenia, depression, autism, Alzheimer's disease, learning deficit, attention deficit, memory loss, and senile dementia; or from a disorder or disease resulting from trauma, stroke, epilepsy, Alzheimer's disease, neurotoxic agents, aging, neurodegenerative disorder, alcohol intoxication, substance abuse, cardiac bypass surgery, and cerebral ischemia.

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